

**Notice of Allowability**

Application No.

10/079,850

Examiner

Glenda P. Rodriguez

Applicant(s)

INAJI ET AL.

Art Unit

2627

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8/31/06.
2. ☒ The allowed claim(s) is/are 1, 2, 4, 5, 7, 8, 10, 11, 13, 14, 16, 17, 19, 20.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 5. <input type="checkbox"/> Notice of Informal Patent Application                      |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|  | 9. <input type="checkbox"/> Other _____.   |

## **DETAILED ACTION**

### ***Allowable Subject Matter***

1. Claims 1, 2, 4, 5, 7, 8, 9, 10, 13, 14, 16, 17, 19 and 20 are allowed.
2. The following is an examiner's statement of reasons for allowance:

Regarding Claims 1 and 4, the primary reason for allowance is the inclusion of the combination of limitations wherein a disturbance torque estimation section for estimating the magnitude of a disturbance exerted on said head from the voltage signal by said voltage detection section and a drive signal from said drive section, and producing disturbance estimation information and a disturbance monitor section for monitoring the disturbance estimation information by said disturbance torque estimation section, and prohibiting a record by said head if said disturbance estimation information exceeds an allowable range.

Regarding Claim 7, the primary reason for allowance is the inclusion of the combination of limitations wherein a position control section for producing position control information corresponding in principle to the position error information by said position detection section and adding the velocity estimation information by said velocity/disturbance torque, estimation section to said position error information according to predetermined conditions to produce position control information and a disturbance monitor section for monitoring the disturbance estimation information by said velocity/disturbance torque estimation section and when said disturbance estimation information exceeds an allowable range, making valid said velocity estimation information with respect to said position error information in said position control section.

Regarding Claims 10 and 13, the primary reason for allowance is the inclusion of the combination of limitations wherein a velocity/disturbance torque estimation section for estimating a head moving velocity and the magnitude of a disturbance exerted on the head from the voltage signal by the voltage detection section and from a drive signal in said drive section, and producing velocity estimation information and disturbance estimation information and a position control section for producing position control information corresponding in principle to the position error information by the position detection section and adding the velocity estimation information by the velocity/disturbance torque estimation section to the position error information according to predetermined conditions to produce position control information.

Regarding Claims 16 and 19, the primary reason for allowance is the inclusion of the combination of limitations wherein a velocity/disturbance torque estimation section for estimating a head moving velocity and the magnitude of a disturbance exerted on the head from the voltage signal by the voltage detection section and from a drive signal in the drive section, and producing velocity estimation information and disturbance estimation information and a correction section for correcting the position control information by said position control section with the disturbance estimation information by the velocity/disturbance torque estimation section and adding the velocity estimation information to said position control information by the velocity/disturbance torque estimation section according to predetermined conditions to produce said drive signal.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

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fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: US Patent No. 6, 754, 025 to Shepherd et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Glenda P. Rodriguez whose telephone number is (571) 272-7561. The examiner can normally be reached on Monday thru Thursday: 7:00-5:00; alternate Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea L. Wellington can be reached on (571) 272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
GPR  
11/07/06.

  
ANDREA WELLINGTON  
SUPERVISORY PATENT EXAMINER